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ABSTRACT

A tunable phase shifter includes a waveguide, a finline substrate positioned within the waveguide, a tunable dielectric layer positioned on the finline substrate, a first conductor positioned on the tunable dielectric layer, and a second conductor positioned on the tunable dielectric layer, with the first and second conductors being separated to form a gap. By controlling a voltage applied to the tunable dielectric material, the phase of a signal passing through the waveguide can be controlled.